


INDEX

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	PLAN
	REFERENCE
	NO.
	SHEET
	OF
	SHEETS

NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS
AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS,
REFER TO THE ENTRY IN THE PLAN REFERENCE NUMBER BOX.

FILE NAME T:\412348\XL6143-SR92-PilchuckRiverCED\CAD\ContractPlans\XL6143_PS_VM.dgn										<div><div>P.E. STAMP BOX</div><div>DATE</div></div>		<div><div>P.E. STAMP BOX</div><div>DATE</div></div>		<div><div></div><div>Washington State Department of Transportation</div></div>		<div><div>SR 92 PILCHUCK RIVER CED WOODY DEBRIS REPAIR</div></div>		Plot 4
TIME 11:12:04 AM		REGION NO. 10		STATE WASH	PLAN REF NO IN2													
DATE 1/11/2024		JOB NUMBER 23A016		LOCATION NO.	SHEET 4 OF 17 SHEETS													
PLOTTED BY DannemA		CONTRACT NO.																
DESIGNED BY R. CARTER																		
ENTERED BY R. CARTER																		
CHECKED BY A. DANNEMILLER																		
PROJ. ENGR. C. ANDERSON																		
REGIONAL ADM. B. NIELSEN		REVISION		DATE		BY												


PROJECT LICENSED PROFESSIONAL CERTIFICATES

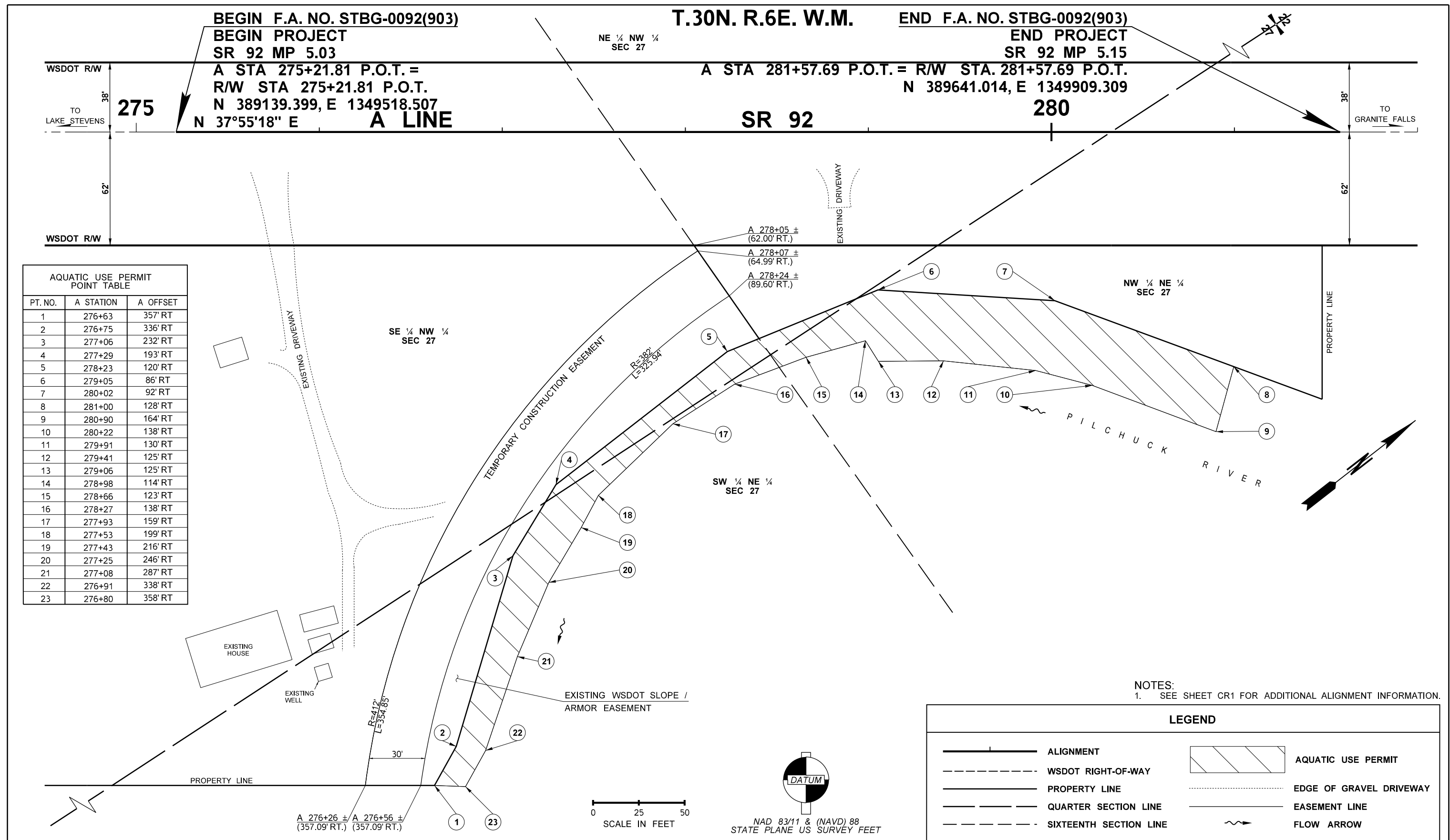
<div>Cullen Anderson</div> <div>Jan 23, 2024</div> <div>AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.</div>	<div>Julie Heilman</div> <div>Jan 23, 2024</div> <div>AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.</div>	<div>Lindsey Jungbluth</div> <div>Jan 23, 2024</div> <div>AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.</div>	
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NOTES:


THIS PLAN SET WAS DEVELOPED ELECTRONICALLY UNDER THE DIRECT SUPERVISION
OF THE LICENSED PROFESSIONALS THAT HAVE AFFIXED THEIR SIGNATURE TO THIS PAGE.

THIS SHEET SERVES AS THE CERTIFICATION BY THE ABOVE LICENSED PROFESSIONALS
OF ALL SHEETS IN THIS PLAN SET WHERE THEIR STAMPS AND SIGNATURES APPEAR.

FILE NAME T:\412348\XL6143-SR92-PILchuckR\verCED\CAD\ContractPlans\XL6143_PS_VM.dgn										Plot 2	
TIME 11:12:05 AM						REGION NO.		STATE		FED.AID PROJ.NO.	
DATE 1/11/2024						10		WASH			
PLOTTED BY DannemA						JOB NUMBER					
DESIGNED BY R. CARTER						23A016				LOCATION NO.	
ENTERED BY R. CARTER						CONTRACT NO.					
CHECKED BY A. DANNE MILLER											
PROJ. ENGR. C. ANDERSON										<div style="text-align: center;">  <p>Washington State Department of Transportation</p> </div>	
REGIONAL ADM. B. NIELSEN											
		REVISION		DATE		BY				<div style="text-align: center;"> <p>SR 92 PILCHUCK RIVER CED WOODY DEBRIS REPAIR</p> <p>CERTIFICATION SHEET</p> </div>	
										<div style="text-align: center;"> <p>PLAN REF NO CT1</p> <p>SHEET 5 OF 17 SHEETS</p> </div>	



FILE NAME T:\412348\XL6143-SR92-PilchuckRiverCED\CAD\ContractPlans\XL6143_PS_AL.dgn										Plot 1											
TIME 11:12:19 AM						REGION NO. STATE		FED.AID PROJ.NO.		SR 92										PLAN REF NO	
DATE 1/11/2024						10 WASH				PILCHUCK RIVER CED										AL1	
PLOTTED BY DannemA						JOB NUMBER				WOODY DEBRIS REPAIR										SHEET 6 OF 17 SHEETS	
DESIGNED BY R. CARTER						23A016				<div><div></div><div>Washington State Department of Transportation</div></div>										ALIGNMENT AND RIGHT OF WAY PLAN	
ENTERED BY R. CARTER																					
CHECKED BY A. DANNEMILLER						CONTRACT NO.		LOCATION NO.													
PROJ. ENGR. C. ANDERSON																					
REGIONAL ADM. B. NIELSEN		REVISION		DATE		BY															



SEE SHEET CT1

DATE

P.E. STAMP BOX

DATE

P.E. STAMP BOX

BEGIN F.A. NO. STBG-0092(903)
BEGIN PROJECT
SR 92 MP 5.03
A STA 275+21.81 P.O.T.

END F.A. NO. STBG-0092(903)
END PROJECT
SR 92 MP 5.15
A STA 281+57.69 P.O.T.

275

A LINE

SR 92

280

END HIGH
VISIBILITY
FENCE

DRIVEWAY
CONSTRUCTION ACCESS

BEGIN HIGH
VISIBILITY
FENCE

PROTECT IN PLACE
EXISTING WATER METER

TEMPORARY CONSTRUCTION ACCESS ROAD
(SEE NOTE 6)

END COMPOST SOCK

END HIGH
VISIBILITY
FENCE

OHW

PILCHUCK RIVER

EXISTING CLASS B ROCK FOR
EROSION AND SCOUR PROTECTION

OHW

OHW

OHW

NOTES:

1. FOR EASEMENT LIMITS SEE SHEET AL1.
2. SEE STANDARD PLAN I-10.10 FOR HIGH VISIBILITY FENCE DETAILS.
3. SEE STANDARD PLAN I-30.40 FOR COMPOST SOCK DETAILS.
4. SEE SPECIAL PROVISION REMOVING AND RESETTING DEBRIS.
5. SEE SPECIAL PROVISION REMOVING AND RESETTING ROADSIDE ITEMS.
6. SEE SPECIAL PROVISION TEMPORARY CONSTRUCTION ACCESS.
7. FOR ADDITIONAL COMPOST SOCK QUANTITIES, SEE SHEET SPP1.

LEGEND

-----	EXISTING EDGE OF PAVEMENT
-----	EXISTING GRAVEL SHOULDER
-----	EXISTING DITCH
q	EXISTING SIGN
⊙	EXISTING WATER METER
⋈	EXISTING TYPE 3 BARRICADE
⊞	EXISTING ECOLOGY BLOCK
⊞	EXISTING LWM
⊞	EXISTING LWM ASSEMBLY
OHW	ORDINARY HIGH WATER MARK
⊞	COMPOST SOCK
- HVF - HVF - HVF -	HIGH VISIBILITY FENCE
- CG - CG - CG -	CLEARING AND GRUBBING
-----	TEMPORARY CONSTRUCTION ACCESS ROAD

HIGH VISIBILITY FENCE POINT TABLE		
PT. NO.	A STATION	OFFSET
1	276+63	357' RT
2	276+45	305' RT
3	276+46	293' RT
4	276+75	214' RT
5	277+14	150' RT
6	277+54	109' RT
7	278+07	67' RT
8	278+08	28' RT
9	278+70	26' RT
10	278+99	26' RT
11	279+35	24' RT
12	280+31	27' RT
13	280+76	31' RT
14	280+99	79' RT
15	281+09	107' RT
16	281+00	128' RT

COMPOST SOCK POINT TABLE		
PT. NO.	A STATION	OFFSET
17	276+47	310' RT
18	276+74	312' RT
19	276+86	270' RT
20	276+97	239' RT
21	277+03	225' RT
22	277+55	153' RT
23	278+23	95' RT
24	278+66	67' RT
25	278+91	62' RT
26	279+67	62' RT

TREE TO SAVE AND PROTECT
SEE SHEETS SPP1 AND LS2

EXISTING
HOUSE

EXISTING
WELL

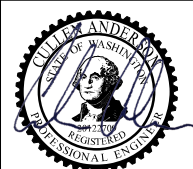
BEGIN COMPOST SOCK

BEGIN HIGH
VISIBILITY
FENCE

0 25 50
SCALE IN FEET

QUANTITIES - THIS SHEET ONLY		
ITEM	UNIT	QTY.
COMPOST SOCK	L.F.	590
HIGH VISIBILITY FENCE	L.F.	740

FILE NAME	T:\412348\XL6143-SR92-PilchuckRiverCEDICAD\ContractPlans\XL6143_PS_SP.dgn				
TIME	11:12:27 AM				
DATE	1/11/2024				
PLOTTED BY	DannemA				
DESIGNED BY	R. CARTER				
ENTERED BY	R. CARTER				
CHECKED BY	A. DANNEMILLER				
PROJ. ENGR.	C. ANDERSON				
REGIONAL ADM.	B. NIELSEN				
REVISION	DATE	BY	REGION NO.	STATE	FED.AID PROJ.NO.
			10	WASH	
			JOB NUMBER		
			23A016		
			CONTRACT NO.		LOCATION NO.



SEE SHEET CT1
DATE

P.E. STAMP BOX

DATE

P.E. STAMP BOX



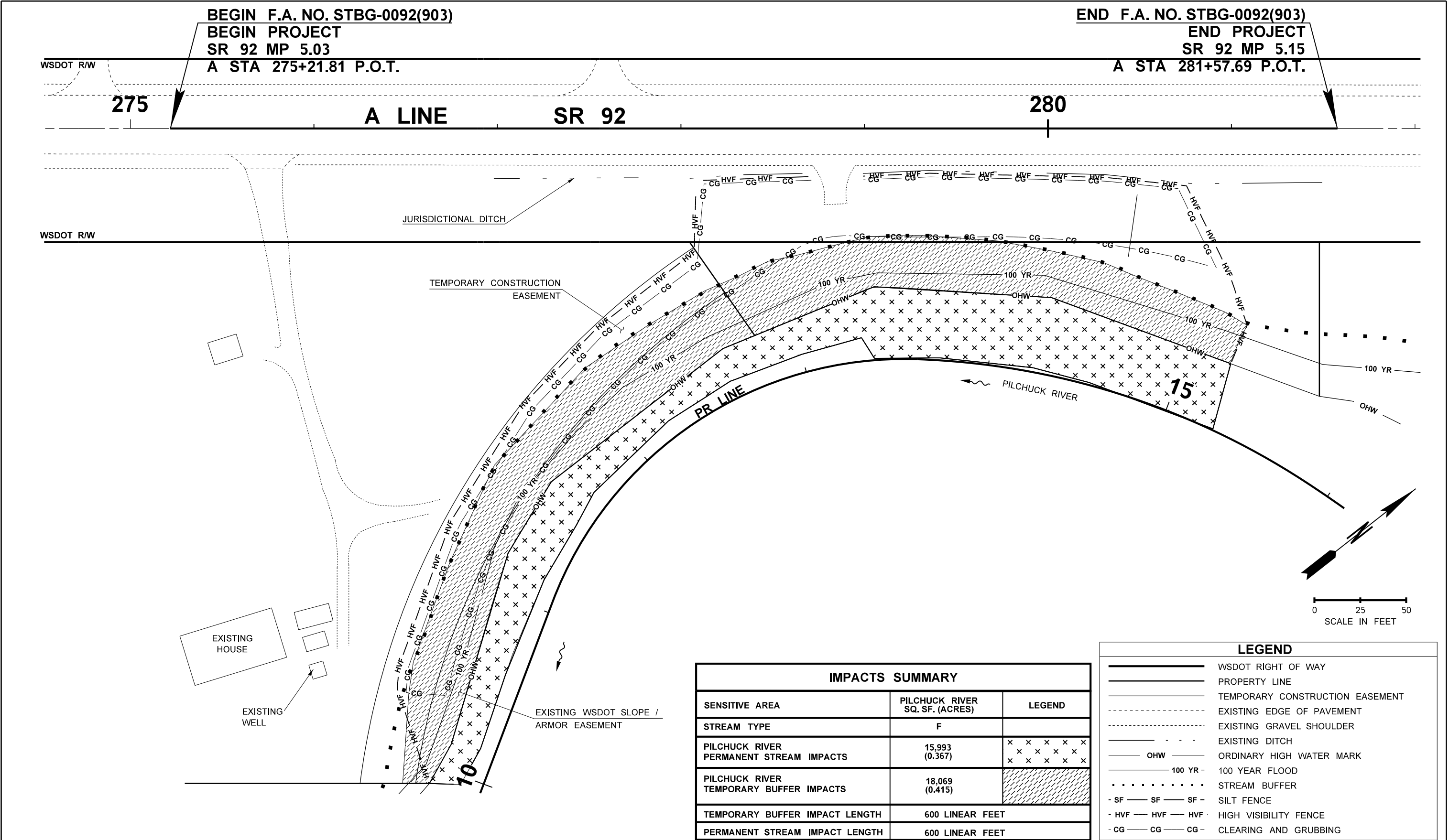
Washington State
Department of Transportation

SR 92
PILCHUCK RIVER CED
WOODY DEBRIS REPAIR

SITE PREPARATION AND TESC PLAN

PLAN REF NO
SP1

SHEET
7
OF
17
SHEETS



PILCHUCK RIVER ALIGNMENT CURVE DATA				
P.I. STATION	DELTA	TANGENT	RADIUS	LENGTH
PR 12+53.19	71°20'32.69" RT	147.20'	205.06'	255.34'
PR 14+75.65	30°53'30.85" RT	114.32'	413.75'	223.08'

END F.A. NO. STBG-0092(903)

END PROJECT
SR 92 MP 5.15

A STA 281+57.69 P.O.T.

275

A LINE

SR 92

280

BEGIN F.A. NO. STBG-0092(903)
BEGIN PROJECT
SR 92 MP 5.03
A STA 275+21.81 P.O.T.

SEE SHEET CD1

SEE SHEET CD1

SEE SHEET CD1

PR 12+53.19 P.I.

PR 14+75.65 P.I.

END CONSTRUCTION
PR 14+90 P.O.C.

PR 13+61.32 P.C.C.

LWM TYPE A
SEE SHEETS CD1 & CD3

PR 15+84.41 P.C.C. P.O.E. =
STA A 281+39.34 (192.02' RT)
N 389508.527, E 1350049.501

PR 11+05.99 P.C.

LOG JACK
SEE SHEET CD1 & CD2

PR 9+58.98 P.O.T. P.O.B. =
STA A 276+78.09 P.O.T. (395.86' RT)
N 389045.869, E 1349910.668


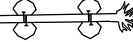
BEGIN CONSTRUCTION
PR 9+90 P.O.T.

LARGE WOODY MATERIAL PLACEMENT SCHEDULE		
TYPE OF LWM	BEGIN STATION	END STATION
DOUBLE LOG JACK	PR 9+90	PR 12+42
LOG JACK	PR 12+42	PR 13+40
LWM TYPE A	PR 13+40	PR 14+90

NOTES:

- LOCATIONS AND ORIENTATION OF LARGE WOODY MATERIAL (LWM) STRUCTURES AS SHOWN ON THIS SHEET ARE APPROXIMATE AND WILL BE STAKED BY THE ENGINEER.
- SEE SHEETS CD1 - CD3 FOR LOG JACK AND LWM DETAILS.
- SEE SHEET AL1 FOR ADDITIONAL ALIGNMENT INFORMATION.

LEGEND

NEW STREAM CENTERLINE	15+00
CONSTRUCTION CENTERLINE	280
EXISTING INDEX CONTOUR	---
EXISTING INTERMEDIATE CONTOUR	---
EXISTING EDGE OF TRAVELED WAY	---
LOG JACK	
LWM TYPE A	



NAD 83/11 & (NAVD) 88
STATE PLANE US SURVEY FEET

0 25 50
SCALE IN FEET

FILE NAME T:\412348\XL6143-SR92-PilchuckRiverCED\CAD\ContractPlans\XL6143_PS_CR.dgn

TIME 8:09:18 AM

DATE 1/22/2024

PLOTTED BY carterra

DESIGNED BY R. CARTER

ENTERED BY R. CARTER

CHECKED BY A. DANNEMILLER

PROJ. ENGR. C. ANDERSON

REGIONAL ADM. B. NIELSEN

REVISION

DATE

BY

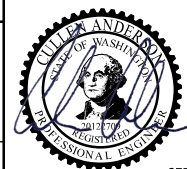
REGION NO. 10
STATE WASH

JOB NUMBER
23A016

CONTRACT NO.

FED.AID PROJ.NO.

LOCATION NO.



SEE SHEET CT1
DATE
P.E. STAMP BOX



SEE SHEET CT1
DATE
P.E. STAMP BOX



Washington State
Department of Transportation

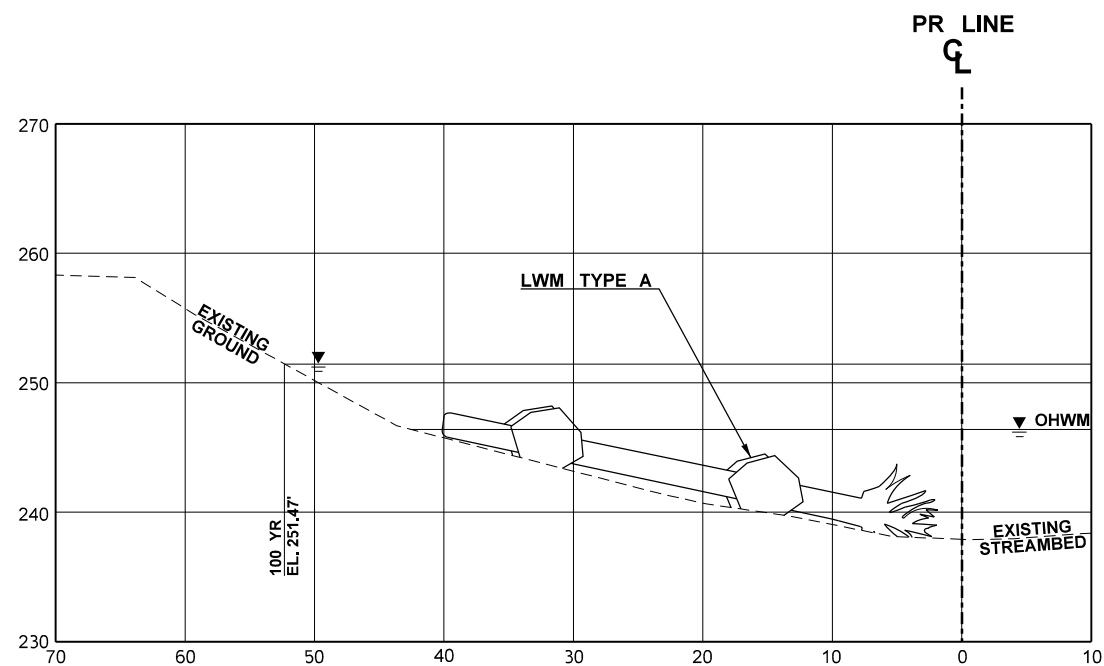
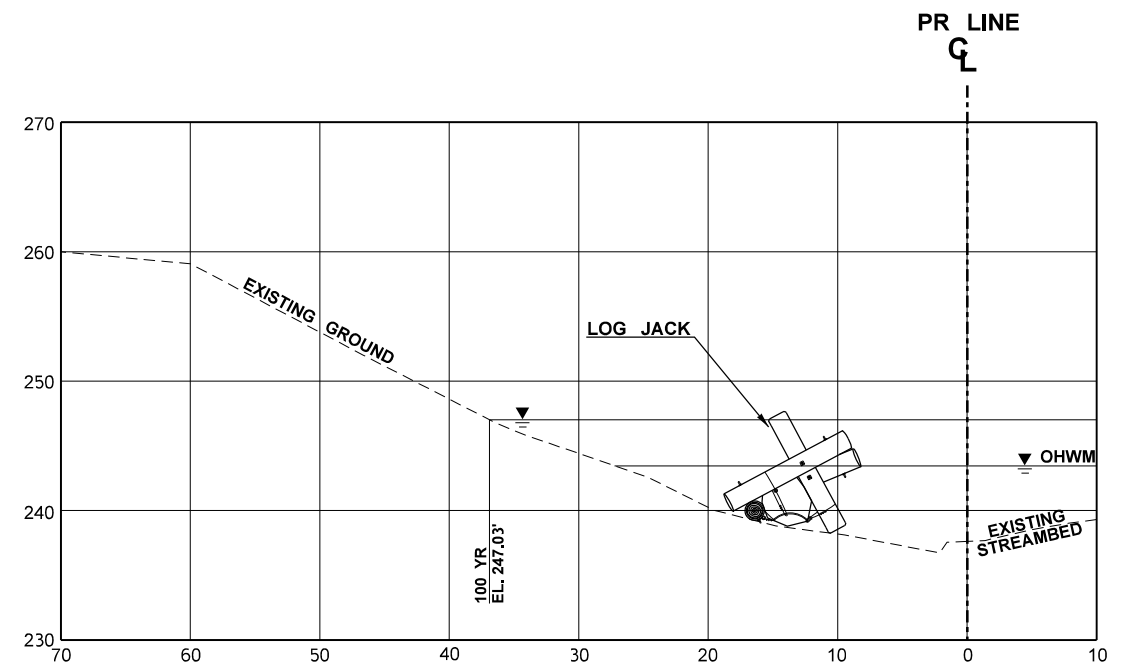
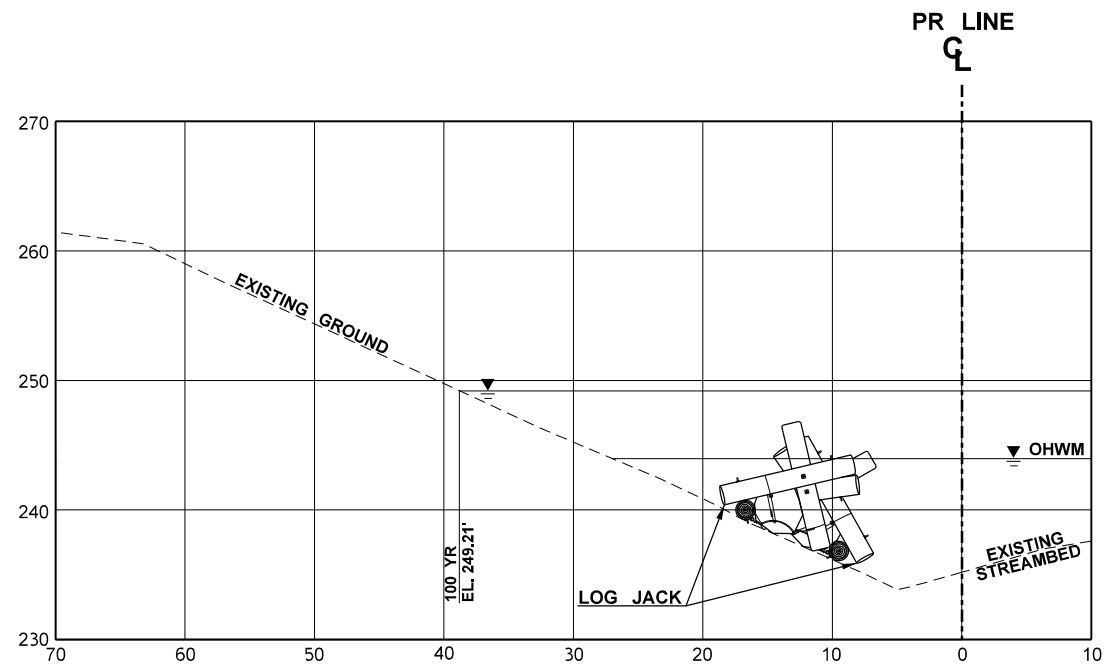
SR 92
PILCHUCK RIVER CED
WOODY DEBRIS REPAIR

STREAM PLAN

Plot 1

PLAN REF NO
CR1

SHEET
9
OF
17
SHEETS



LOG JACK (SEE SHEET CD2) SCHEDULE PER UNIT				
MEMBER	QUANTITY	DIAMETER (IN.)	LENGTH (FT.)	DESCRIPTION*
STRUCTURE LOG	3	16 - 20	11.5 - 12.5	DOUGLAS FIR OR RED CEDAR
STRUCTURE LOG (POST LOG)	1	16 - 20	9.5 - 10.5	DOUGLAS FIR OR RED CEDAR
CEDAR TREE	3	-	6 - 10	-
BOULDER ANCHOR	1	N/A	N/A	WEIGHT 6 TON (MIN), 7 TON (MAX) EACH
ALL-THREAD	5	1.25	VARIES	ASTM A193 GRADE 55, PLAIN FINISH
WIRE ROPE	4	0.50	VARIES	ASTM A492, STAINLESS STEEL
SHACKLE	1	0.75	-	BOLT TYPE SHACKLE, MIN. WLL 9,500 LBS
MANILA ROPE	6	0.50	VARIES	FEDERAL SPECIFICATION T-R-605B

*SEE SPECIAL PROVISIONS FOR ADDITIONAL MATERIAL SPECIFICATIONS AND REQUIREMENTS.




GENERAL PLACEMENT: SEE SHEETS CR1 & CD1 FOR GENERAL LOCATION AND ELEVATION. PLACE LOGS AS DIRECTED BY THE ENGINEER. LAYOUT MAY VARY FROM THAT SHOWN IN THE PLANS.



(NAVD) 88

NOTES:

1. LOCATIONS AND ORIENTATION OF LARGE WOODY MATERIAL (LWM) STRUCTURES AS SHOWN ON THIS SHEET ARE APPROXIMATE AND WILL BE STAKED BY THE ENGINEER.
2. SEE SHEET CR1 FOR LWM PLAN.

FILE NAME T:\412348\XL6143-SR92-PilchuckRiverCED\CAD\ContractPlans\XL6143_PS_CR.dgn										Plot 2	
TIME 8:09:19 AM						REGION NO.		STATE		FED.AID PROJ.NO.	
DATE 1/22/2024						10		WASH			
PLOTTED BY carterra						JOB NUMBER				LOCATION NO.	
DESIGNED BY R. CARTER						23A016					
ENTERED BY R. CARTER						CONTRACT NO.					
CHECKED BY A. DANNEMILLER											
PROJ. ENGR. C. ANDERSON											
REGIONAL ADM. B. NIELSEN		REVISION		DATE		BY					
  <div style="display: flex; justify-content: space-around; align-items: center;"> <div>  <p>Washington State Department of Transportation</p> </div> <div> <p>SR 92 PILCHUCK RIVER CED WOODY DEBRIS REPAIR</p> </div> </div>										PLAN REF NO CD1	
LARGE WOODY MATERIAL DETAILS										SHEET 10 OF 17 SHEETS	

LOG A

POST LOG

LOG B

LOG C

ALL-THREAD CONNECTION (TYP)

~8.0' VARIES

12.0'

1.5'

STEP 1

1. BUILD BASE TRIANGLE WITH LOGS A, B, & C OVERLAID AS SHOWN.
2. LOCATE POST LOG IN CORNER OF LOGS A, B & C SO THAT HALF THE POST LOG IS BELOW THE BASE TRIANGLE.
3. ADJUST LOGS SO THAT BOULDER WILL NOT PASS THROUGH THE OPENING
4. DRILL AND BOLT LOGS A, B & C TOGETHER WITH ALL-THREAD, NUTS, AND WASHERS

The diagram illustrates the third step of the anchoring process. It shows a cross-section of a rock face with three logs: LOG A (top), LOG B (bottom left), and LOG C (bottom right). A wire rope loop is wrapped around LOG B and LOG C, passing through a SHACKLE. The loop is secured with ALL-THREAD CONNECTION (TYP) bolts. The diagram is labeled STEP 3.

1. ENSURE POST LOG IS IN CONTACT WITH BOULDER.
2. DRILL AND BOLT LOG B AND LOG C TO POST LOG WITH ALL-THREAD, NUTS, AND WASHERS.
3. WRAP WIRE ROPE LOOP AROUND POST LOG AND THROUGH SHACKLE AND SECURE LOOP WHILE UNDER MECHANICAL TENSION WITH 3 WIRE ROPE CLIPS.

FILE NAME		T:\12348\XL6143-SR92-PII\chuckRiverCED\CAD\ContractPlans\XL6143_PS_CR.dgn				REGION NO.		STATE		FED.AID PROJ.NO.	
TIME		8:09:20 AM									
DATE		1/22/2024									
PLOTTED BY		carterra									
DESIGNED BY		R. CARTER						JOB NUMBER		LOCATION NO.	
ENTERED BY		R. CARTER						23A016			
CHECKED BY		A. DANNEMILLER						CONTRACT NO.			
PROJ. ENGR.		C. ANDERSON									
REGIONAL ADM.		B. NIELSEN		REVISION		DATE		BY			

The diagram illustrates the second step of the boulder securing process. A boulder is positioned on top of a triangular log base. The base consists of three logs: a horizontal top log labeled 'LOG A', and two angled bottom logs labeled 'LOG B' and 'LOG C'. A double-wire rope ring is placed around the boulder, approximately halfway across its diameter. A shackle is attached to the top of this ring, facing the top log. Three screw eyes are threaded into the logs: one into the top log (LOG A) and one into each of the bottom logs (LOG B and LOG C). The screw eyes are positioned such that the distance from the eye to the top of the boulder is minimized. Wire rope clips are used to secure the wire rope loops around each log, passing through the screw eyes and the double-wire rope ring. Labels with leader lines identify the following components: LOG A, LOG B, LOG C, WIRE ROPE CLIP (TYP), SCREW EYE (TYP), SHACKLE, DOUBLE WIRE ROPE WRAP, and SINGLE WIRE ROPE WRAP.

STEP 2

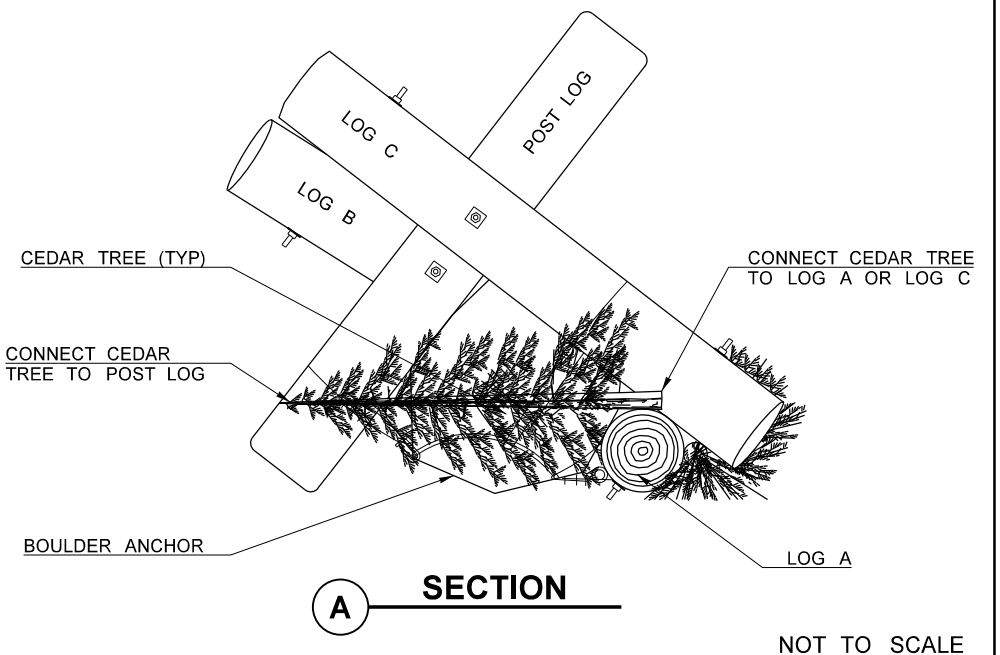
1. PLACE BOULDER ON LOG BASE TRIANGLE. ORIENT SO IT RESTS SECURELY ON ALL THREE LOGS AND AGAINST THE POST LOG AND WILL NOT PASS THROUGH TRIANGULAR OPENING.
2. THREAD SCREW EYES INTO LOGS A, B AND C SUCH THAT THE DISTANCE FROM THE EYE TO THE TOP OF THE BOULDER IS MINIMIZED. THE SCREW EYE SHALL BE HORIZONTAL.
3. PLACE A DOUBLE-WRAP WIRE ROPE RING APPROXIMATELY 1/2 THE BOULDER DIAMETER OVER THE TOP CENTER OF THE BOULDER. THREAD A SHACKLE THROUGH BOTH WRAPS FACING THE POST LOG. SECURE WIRE ROPE LOOSELY WITH 3 WIRE ROPE CLIPS.
4. WRAP A WIRE ROPE LOOP AROUND EACH LOG, THROUGH EACH SCREW EYE, AND THROUGH THE WIRE ROPE LOOP. SECURE EACH LOOP WITH 3 WIRE ROPE CLIPS. MECHANICALLY TENSION THE DOUBLE-WRAP WIRE ROPE RING TO SECURE THE BOULDER TO THE LOG BASE, AND THEN SECURE THE 3 WIRE ROPE CLIPS WHILE UNDER TENSION.
5. CINCH THE BOULDER SNUG AGAINST THE BASE TRIANGLE AND POST LOG SUCH THAT THERE IS NO PLAY.

The diagram illustrates the final assembly step of the shelter. A large cedar tree is positioned horizontally across the top, spanning the connection between Log A and Log B. Two other cedar trees are positioned vertically, one on each side of the central post log, spanning the connection between the post log and Log C. The central post log is labeled 'POST LOG' and has a spiral pattern indicating its length. The logs are labeled 'LOG A', 'LOG B', and 'LOG C'. The cedar trees are shown with detailed needle patterns. A vertical line with circular end caps labeled 'A' is on the right side of the diagram.

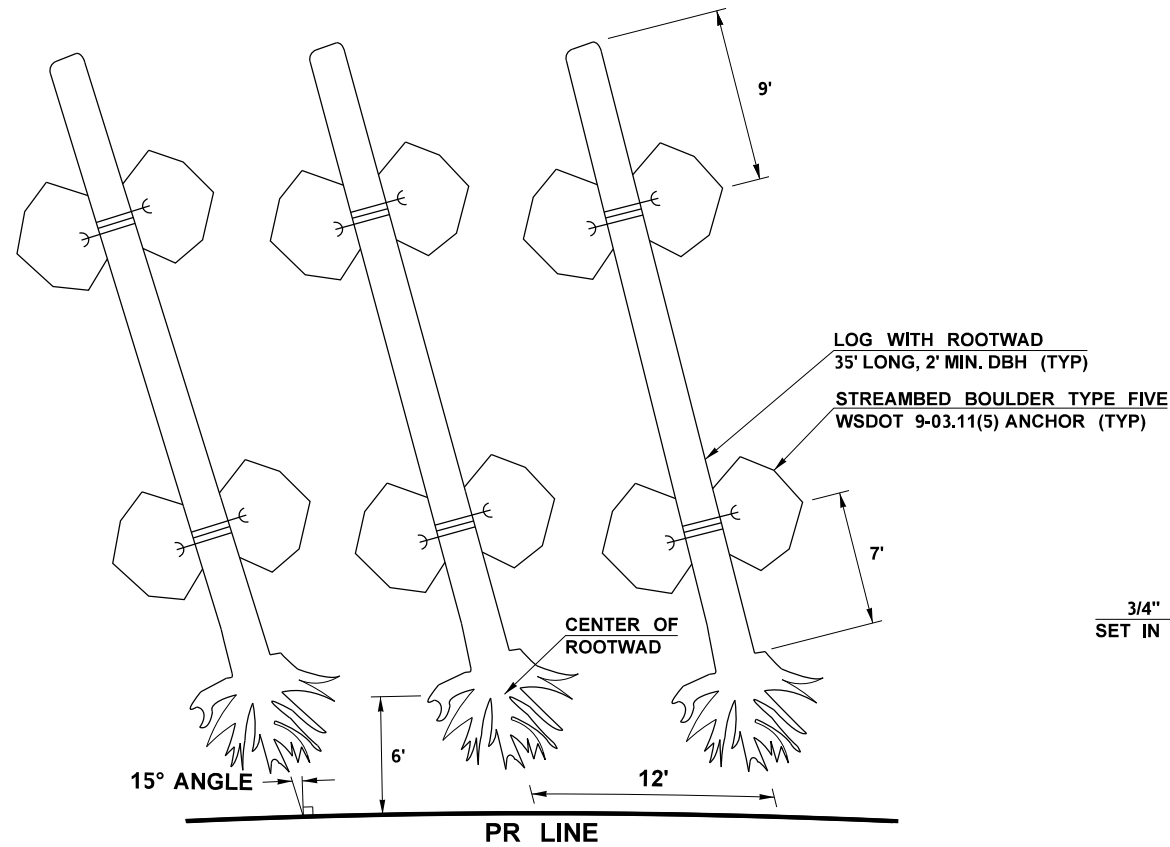
STEP 4

1. ATTACH ONE CEDAR TREE SPANNING THE LOG A/LOG B CONNECTION POINT TO THE LOG A/LOG C CONNECTION POINT.
2. ATTACH ONE CEDAR TREE SPANNING THE LOG A/LOG B CONNECTION POINT TO THE BOULDER SIDE OF THE POST LOG WITH THE CEDAR TREE'S BASE FACING LOG A.
3. ATTACH ONE CEDAR TREE SPANNING THE LOG A /LOG C CONNECTION POINT TO THE BOULDER SIDE OF THE POST LOG WITH THE CEDAR TREE'S BASE FACING LOG A.

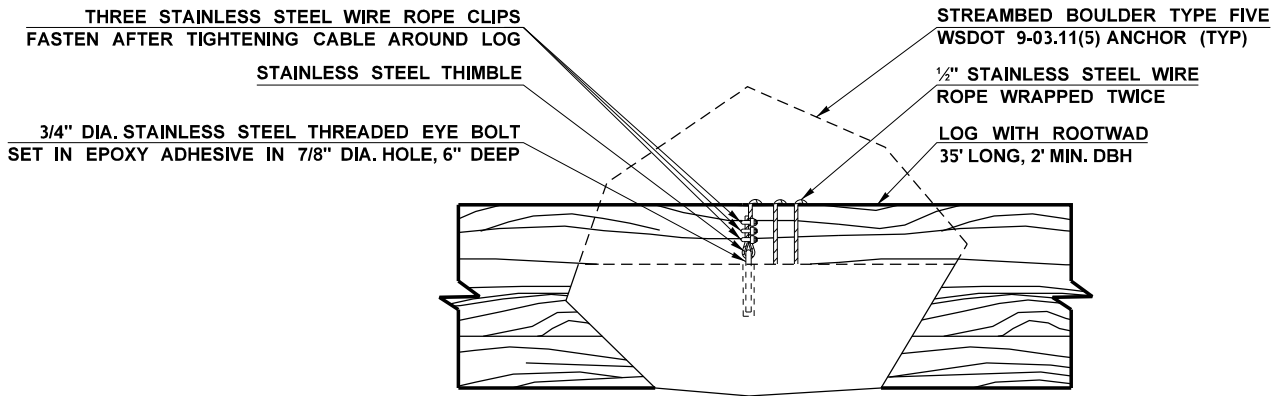
1. LOCATIONS AND ORIENTATION OF LWM STRUCTURES AS SHOWN ON THIS SHEET ARE APPROXIMATE AND WILL BE STAKED BY THE ENGINEER.
2. SEE SHEET CR1 FOR LWM PLAN.
3. ALL WIRE ROPE SHALL BE NON-OILED AND NON-GALVANIZED.
4. ALL WIRE ROPE ENDS MUST BE NO LONGER THAN 12" AND TERMINATE WITH A MECHANICALLY CRIMPED SLEEVE OR OTHER APPROVED METHOD.
5. LOGS AND BOULDERS ARE NOT SYMMETRICAL AND HAVE NATURALLY OCCURRING VARIATIONS THAT NECESSITATE CUSTOM FITTING. THE CONTRACTOR SHALL MODIFY THE LOG-TO-LOG AND LOG-TO-BOULDER CONNECTIONS SO THAT THE COMPLETED JACK IS A TIGHT AND COMPACT UNIT. THERE SHOULD BE NO PLAY IN THE LOG-TO-LOG CONNECTIONS. THE BOULDER SHOULD BE SECURELY CONTAINED WITHIN AND IN CONTACT WITH ALL 4 LOGS.
6. REMOVE ALL BARK AT LOG-TO-LOG CONNECTIONS AND ANY BARK IN CONTACT WITH WASHERS AND WIRE ROPE PRIOR TO BOLTING AND TENSIONING RESPECTIVELY.
7. ALL LOG-TO-LOG ALL-THREAD CONNECTIONS MUST BE MADE THROUGH THE CENTER OF THE LOG WITH A MINIMUM OF 24" BETWEEN THE ALL-THREAD AND THE LOG END.
8. DOUBLE WIRE ROPE WRAPS SHOULD BE MECHANICALLY TENSIONED TO ~1/4 OF THE WIRE ROPE WORKING LOAD.
9. CONNECT CEDAR TREES TO LOGS AT BOTH ENDS OF TREE USING MANILA ROPE AND A DIAGONAL LASHING WITHOUT FRAPS.
10. SEE SPECIAL PROVISION WOODY MATERIAL FOR ADDITIONAL INFORMATION.



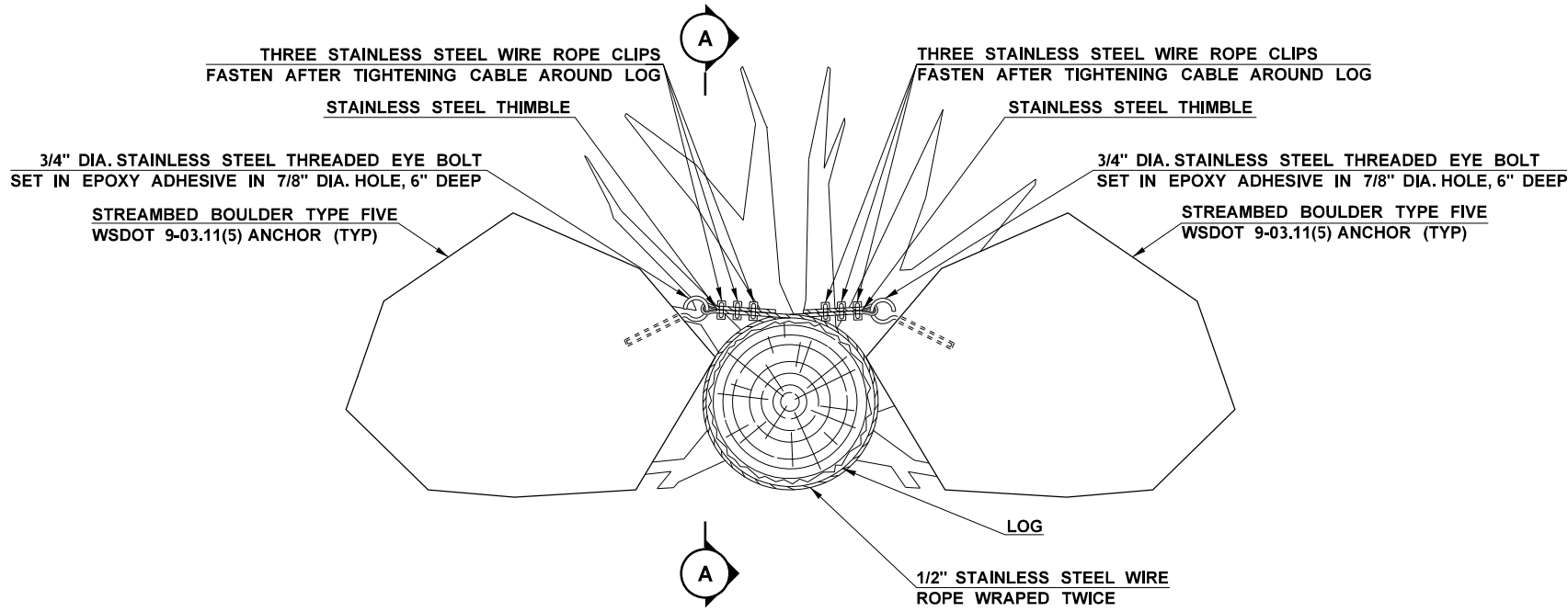
- NOTES:
- 1. LOCATIONS AND ORIENTATION OF LWM STRUCTURES AS SHOWN ON THIS SHEET ARE APPROXIMATE AND WILL BE STAKED BY THE ENGINEER.
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 - 4. ALL WIRE ROPE ENDS MUST BE NO LONGER THAN 12" AND TERMINATE WITH A MECHANICALLY CRIMPED SLEEVE OR OTHER APPROVED METHOD.
 - 10. SEE SPECIAL PROVISION WOODY MATERIAL FOR ADDITIONAL INFORMATION.
 - 11. ROCK SHALL BE SUFFICIENTLY HARD TO NOT BREAK WHEN UNLOADED FROM THE HAUL VEHICLE AND/OR DROPPED FROM UP TO 8 FT AT THE STAGING AREA. ROCK BROKEN DURING TESTING SHALL BE REJECTED.






LWM TYPE A TYPICAL LAYOUT



A-A SECTION VIEW







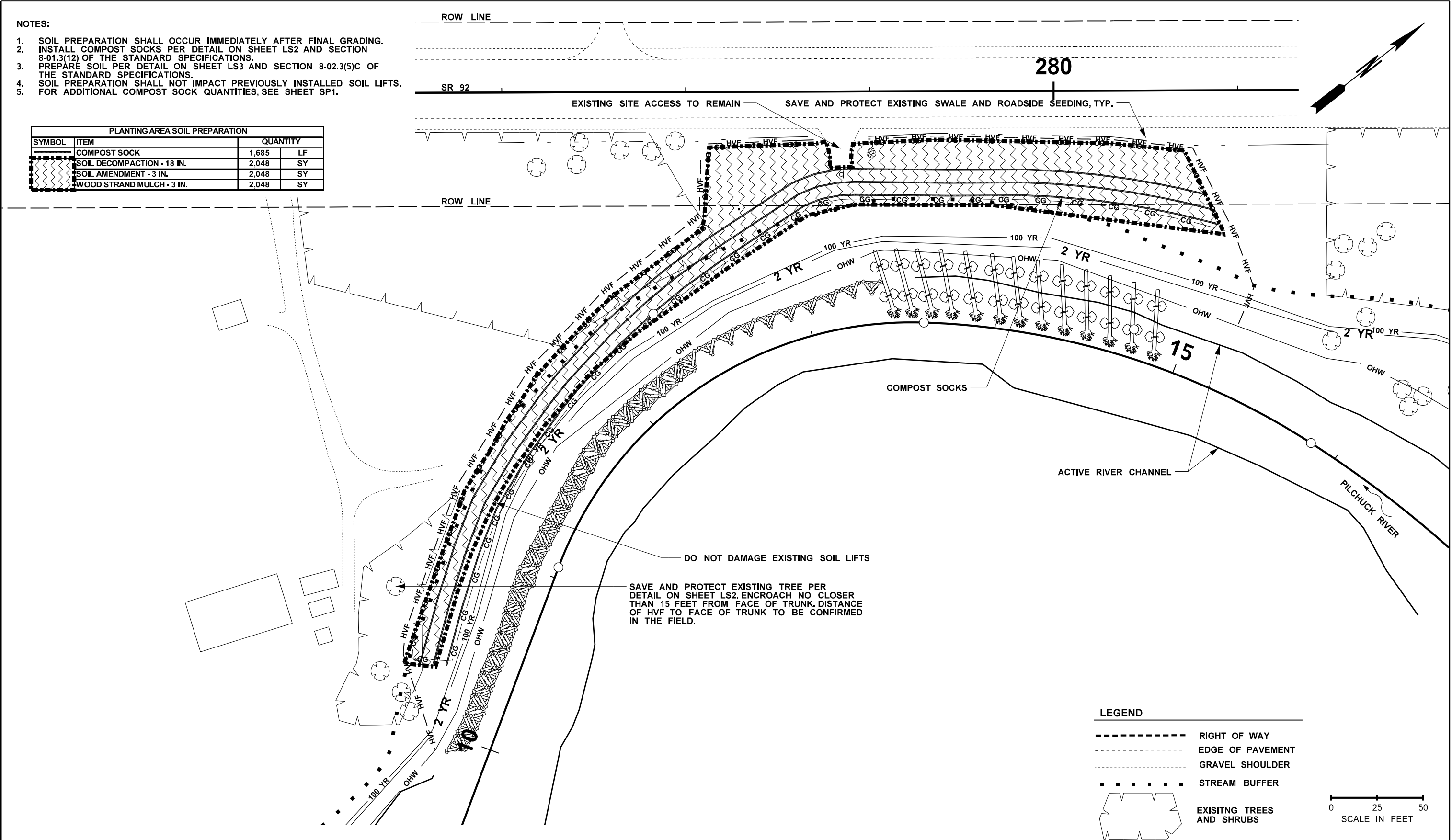
BOULDER ANCHOR ASSEMBLY

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TIME	8:09:21 AM			10	WASH								PLAN REF NO CD3		SHEET 12 OF 17 SHEETS
DATE	1/22/2024														
PLOTTED BY	carterra														
DESIGNED BY	R. CARTER														
ENTERED BY	R. CARTER														
CHECKED BY	A. DANNEMILLER														
PROJ. ENGR.	C. ANDERSON														
REGIONAL ADM.	B. NIELSEN														
		REVISION	DATE	BY					LOCATION NO.						

NOTES:

1. SOIL PREPARATION SHALL OCCUR IMMEDIATELY AFTER FINAL GRADING.
2. INSTALL COMPOST SOCKS PER DETAIL ON SHEET LS2 AND SECTION 8-01.3(12) OF THE STANDARD SPECIFICATIONS.
3. PREPARE SOIL PER DETAIL ON SHEET LS3 AND SECTION 8-02.3(5)C OF THE STANDARD SPECIFICATIONS.
4. SOIL PREPARATION SHALL NOT IMPACT PREVIOUSLY INSTALLED SOIL LIFTS.
5. FOR ADDITIONAL COMPOST SOCK QUANTITIES, SEE SHEET SP1.

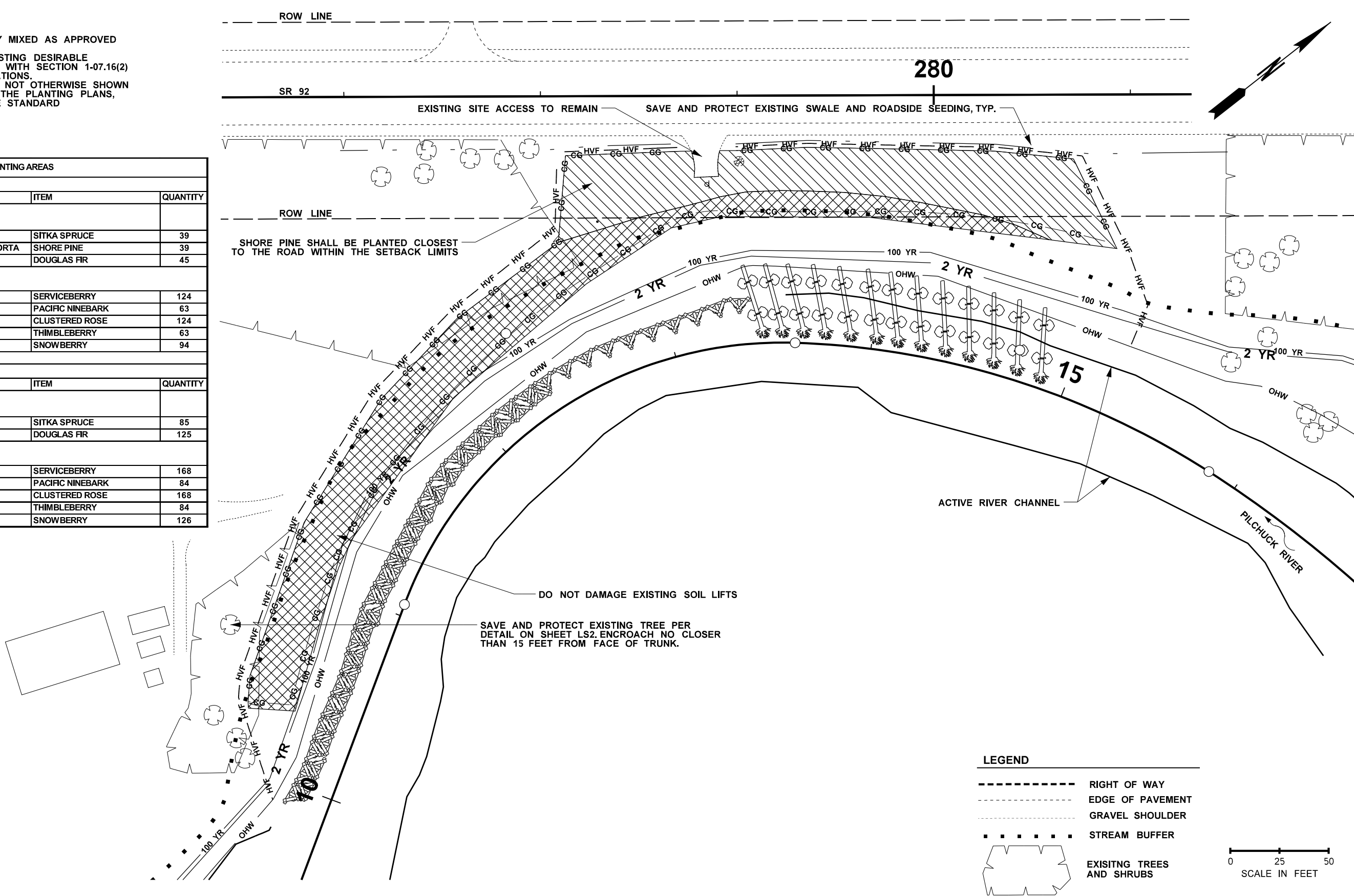
PLANTING AREA SOIL PREPARATION				
SYMBOL	ITEM	QUANTITY		
	COMPOST SOCK	1,685	LF	
	SOIL DECOMPACTION - 18 IN.	2,048	SY	
	SOIL AMENDMENT - 3 IN.	2,048	SY	
	WOOD STRAND MULCH - 3 IN.	2,048	SY	



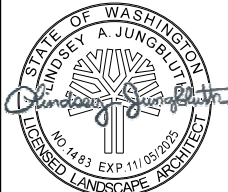
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TIME										3:43:20 PM									
DATE										1/9/2024									
PLOTTED BY										JamesMe									
DESIGNED BY										M. JAMES									
ENTERED BY										M. JAMES									
CHECKED BY										L. JUNGBLUTH									
PROJ. ENGR.										C. ANDERSON									
REGIONAL ADM.										B. NIELSEN									
REVISION										DATE									
BY										10									
STATE										WASH									
JOB NUMBER										23A016									
CONTRACT NO.										LOCATION NO.									

- NOTES
1. PLANTS SHALL BE RANDOMLY MIXED AS APPROVED BY THE ENGINEER.
 2. PRESERVE AND PROTECT EXISTING DESIRABLE VEGETATION IN ACCORDANCE WITH SECTION 1-07.16(2) OF THE STANDARD SPECIFICATIONS.
 3. SEED ALL DISTURBED AREAS NOT OTHERWISE SHOWN AS PLANTED OR SEEDED IN THE PLANTING PLANS, PER SECTION 8-01.3(2) OF THE STANDARD SPECIFICATIONS.

PLANTING AREAS			
MIX U (UPLAND)			
SYMBOL	ITEM	QUANTITY	
	TREES - 8' O.C.		
	PICEA SITCHENSIS	SITKA SPRUCE	39
	PINUS CONTORTA VAR. CONTORTA	SHORE PINE	39
	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	45
SHRUBS - 4' O.C.			
	AMELANCHIER ALNIFOLIA	SERVICEBERRY	124
	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	63
	ROSA PISOCARPA	CLUSTERED ROSE	124
	RUBUS PARVIFLORUS	THIMBLEBERRY	63
	SYMPHORICARPOS ALBUS	SNOWBERRY	94
MIX R (RIPARIAN)			
SYMBOL	ITEM	QUANTITY	
	TREES - 8' O.C.		
	PICEA SITCHENSIS	SITKA SPRUCE	85
	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	125
	SHRUBS - 4' O.C.		
	AMELANCHIER ALNIFOLIA	SERVICEBERRY	168
	PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	84
	ROSA PISOCARPA	CLUSTERED ROSE	168
	RUBUS PARVIFLORUS	THIMBLEBERRY	84
	SYMPHORICARPOS ALBUS	SNOWBERRY	126



FILE NAME	T:\412006\XL6143 SR 92 Pilchuck River CED Woody Material Repair\CAD\ContractPlans\XL6143_PS_LS.dgn	REGION NO.	STATE	FED.AID PROJ.NO.
TIME	11:15:43 AM	10	WASH	
DATE	1/10/2024			
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DESIGNED BY	M. JAMES	JOB NUMBER		
ENTERED BY	M. JAMES	23A016		
CHECKED BY	L. JUNGBLUTH	CONTRACT NO.		
PROJ. ENGR.	C. ANDERSON	LOCATION NO.		
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY

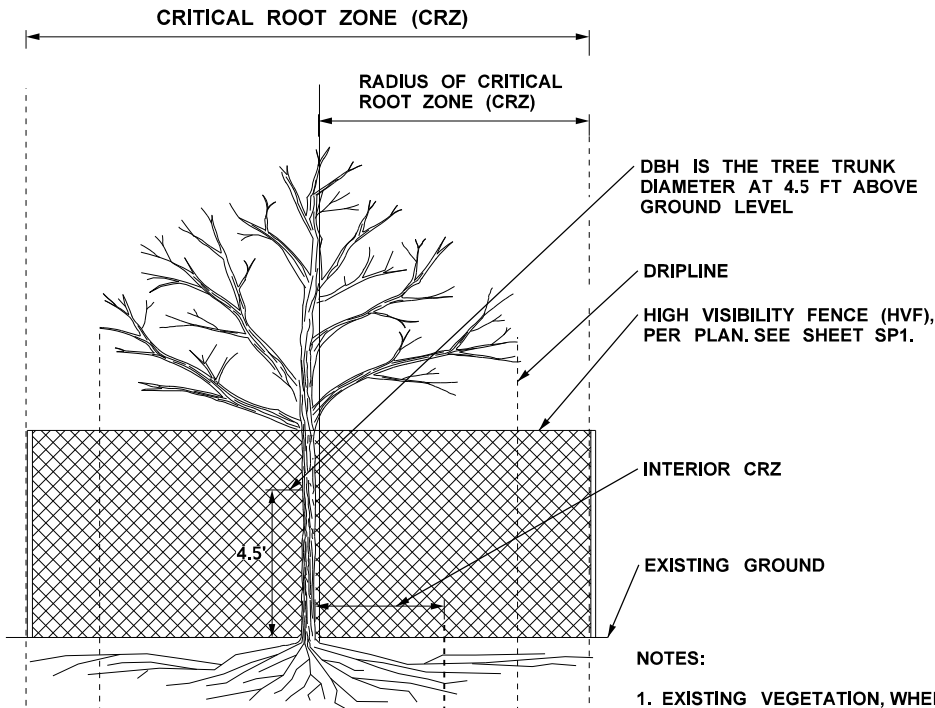


SEE SHEET CT1
DATE



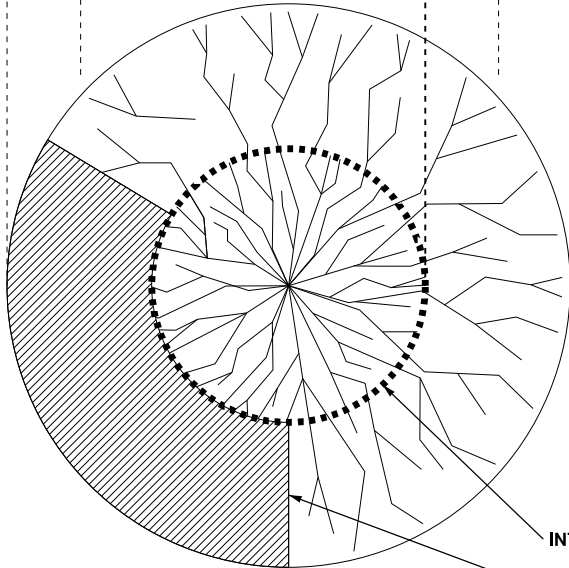
SR 92
PILCHUCK RIVER CED
WOODY MATERIAL REPAIR
RESTORATION PLAN

Plot 2
LS1
SHEET
14
OF
17
SHEETS



ELEVATION

THE INTERNATIONAL SOCIETY OF ARBORICULTURE DEFINES CRITICAL ROOT ZONE AS AN AREA EQUAL TO 1-FOOT RADIUS FROM THE BASE OF THE TREE'S TRUNK FOR EACH 1 INCH OF THE TREE'S DIAMETER AT 4.5 FEET ABOVE GROUND LEVEL(AGL) (REFERRED TO AS DBH)



PLAN

DBH IS THE TREE TRUNK DIAMETER AT 4.5 FT ABOVE GROUND LEVEL

DRIPLINE

HIGH VISIBILITY FENCE (HVF), PER PLAN. SEE SHEET SP1.

INTERIOR CRZ

EXISTING GROUND

NOTES:

- EXISTING VEGETATION, WHERE SHOWN IN THE PLANS OR DESIGNATED BY THE ENGINEER, SHALL BE SAVED AND PROTECTED THROUGH THE LIFE OF THE CONTRACT. (SS 1-07.16(2)) & (RPM 2.2.1)
- ANY DISCREPANCIES BETWEEN INFORMATION IN THE PS&E AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- TREE PROTECTION FENCING SHALL BE A HIGH VISIBILITY FENCE (HVF) AND SHALL BE INSTALLED PER STANDARD SPECIFICATION 8-01.3(1) AND 1-07.16(2)A.
- TREE PROTECTION FENCING SHOWN ON PLANS IS DIAGRAMMATIC. CONTRACTOR SHALL FIELD VERIFY LOCATIONS WITH ENGINEER PRIOR TO INSTALLATION AND PRIOR TO INITIATING CONSTRUCTION.
- ALL TREE PROTECTION MEASURES SHALL BE INSTALLED BY THE CONTRACTOR AND INSPECTED BY WSDOT ENGINEER PRIOR TO BEGINNING SITE DISTURBING ACTIVITIES.
- TREE PROTECTION MEASURES SHALL REMAIN INTACT AT ALL TIMES DURING CONSTRUCTION UNLESS DIRECTED OTHERWISE BY WSDOT ENGINEER.
- TREE PROTECTION FENCING SHALL REMAIN WITHIN ALL TEMPORARY CONSTRUCTION EASEMENTS (TCE) AND SHALL NOT EXTEND PAST THE TCE LINE.
- A DISTURBANCE AFFECTING 30 PERCENT OR LESS OF THE OUTER HALF OF THE CRZ, PER TREE, IS ALLOWED WITHOUT WSDOT CONCURRENCE IF APPROVED BY THE PROJECT ARBORIST. ANY DISTURBANCES AFFECTING GREATER THAN 30 PERCENT TO THE OUTER HALF OF THE CRZ IS CONSIDERED A PERMANENT IMPACT AND REQUIRED REVIEW AND APPROVAL BY A WSDOT ENGINEER. ANY DISTURBANCE TO THE INTERIOR HALF OF THE CRZ IS CONSIDERED A PERMANENT IMPACT AND REQUIRES REVIEW AND APPROVAL BY A WSDOT ENGINEER. ALL PERMANENT TREE IMPACTS SHALL BE REVIEWED BY WSDOT BEFORE THE PROTECTION OR REMOVAL STATUS CAN BE FINALIZED.

INTERIOR CRZ RADIUS = 1/2 OF CRZ RADIUS

REFER TO NOTE 8 FOR ACCEPTABLE ENCROACHMENTS INTO THE CRZ

TREE PROTECTION

ELEVATION VIEW & PLAN VIEW

NOT TO SCALE

PLANT MATERIAL LIST				
COMMON NAME	BOTANICAL NAME	QUANTITY	ROOT CONDITION	REMARKS
EVERGREEN TREES				
SITKA SPRUCE	PICEA SITCHENSIS	124	NO. 2 CONT.	SECTION 9-14.7, SINGLE LEADER
SHORE PINE	PINUS CONTORTA VAR. CONTORTA	39	NO. 2 CONT.	SECTION 9-14.7, SINGLE LEADER
DOUGLAS FIR	PSEUDOTSUGA MENZIESII	170	NO. 2 CONT.	SECTION 9-14.7, SINGLE LEADER
DECIDUOUS SHRUBS				
SERVICEBERRY***	AMELANCHIER ALNIFOLIA	292	NO. 1 CONT.	SECTION 9-14.7, THREE STEM MIN.
PACIFIC NINEBARK***	PHYSOCARPUS CAPITATUS	147	NO. 1 CONT.	SECTION 9-14.7, THREE STEM MIN.
CLUSTERED ROSE**	ROSA PISOCARPA	292	NO. 1 CONT.	SECTION 9-14.7, THREE STEM MIN.
THIMBLEBERRY***	RUBUS PARVIFLORUS	147	NO. 1 CONT.	SECTION 9-14.7, THREE STEM MIN.
SNOWBERRY**	SYMPHORICARPOS ALBUS	220	NO. 1 CONT.	SECTION 9-14.7, THREE STEM MIN.

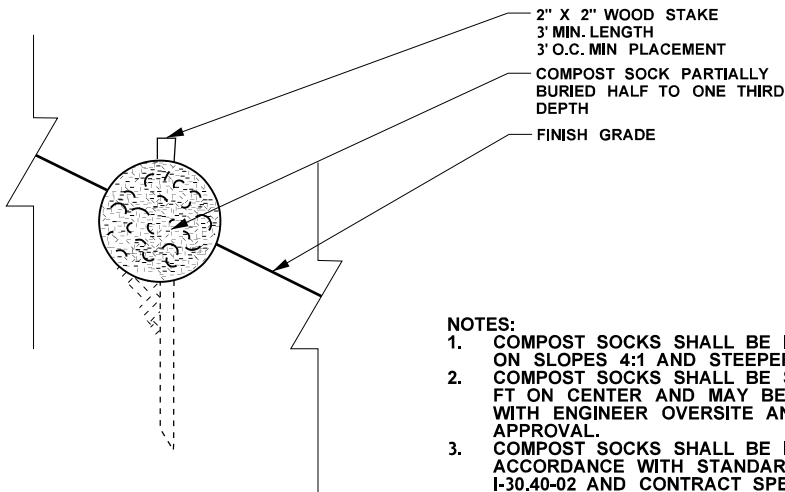
GENERAL PLANT MATERIAL NOTES:

- ALL PLANT MATERIAL SHALL BE NURSERY GROWN STOCK.
- IF A CONFLICT OCCURS BETWEEN THE AMERICAN STANDARD FOR NURSERY STOCK AND THESE SPECIFICATIONS THEN THESE SPECIFICATIONS SHALL APPLY.
- SPECIFICATIONS FOR SIZE AND CONDITION ARE MINIMUM.

PLANT MATERIAL SETBACK

THIS CHART SUPPLEMENTS SECTION 8-02.3(7) OF THE STANDARD SPECIFICATIONS. SETBACKS APPLY UNLESS OTHERWISE ADJUSTED BY ENGINEER DURING PLANT STAKING OR LAYOUT. DISTANCES BELOW ARE TO THE STEM OR TRUNK OF THE PLANT BEING INSTALLED.

	GUARDRAIL BARRIER	EDGE OF ROADWAY	WALL	FENCE	SIGNS	EXISTING TREE TRUNK	EXISTING VEGETATION MASS	OVERHEAD POWER	DRAINAGE STRUCTURE	DRAINAGE ACCESS ROAD	SIDEWALK	SIGNING AND LIGHTING
GROUND COVER *	5'	5'	3'	1.5'	1.5'	5'	5'	-	5'	5'	2'	2'
SMALL SHRUB **	5'	10'	5'	3'	6'	5'	5'	-	5'	5'	2'	5'
TALL SHRUB ***	10'	15'	10'	3'	6'	10'	10'	10'	10'	10'	5'	10'
DECIDUOUS TREE	15'	20'	15'	10'	15'	15'	10'	20'	10'	15'	10'	15'
EVERGREEN TREE	15'	20'	15'	10'	15'	15'	10'	30'	10'	15'	10'	15'



NOTES:

- COMPOST SOCKS SHALL BE INSTALLED ON SLOPES 4:1 AND STEEPER.
- COMPOST SOCKS SHALL BE SPACED 6-8 FT ON CENTER AND MAY BE FIELD FIT WITH ENGINEER OVERSIGHT AND APPROVAL.
- COMPOST SOCKS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD PLAN I-30.40-02 AND CONTRACT SPECIFICATIONS, WITH THE EXCEPTION OF SPACING AS NOTED ABOVE.

COMPOST SOCK

SECTION VIEW

NTS

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TIME	3:32:03 PM						
DATE	1/9/2024						
PLOTTED BY	JamesMe						
DESIGNED BY	M. JAMES						
ENTERED BY	M. JAMES						
CHECKED BY	L. JUNGBLUTH						
PROJ. ENGR.	C. ANDERSON						
REGIONAL ADM.	B. NIELSEN						
	REVISION		DATE	BY			



SEE SHEET CT1
DATE



Washington State
Department of Transportation

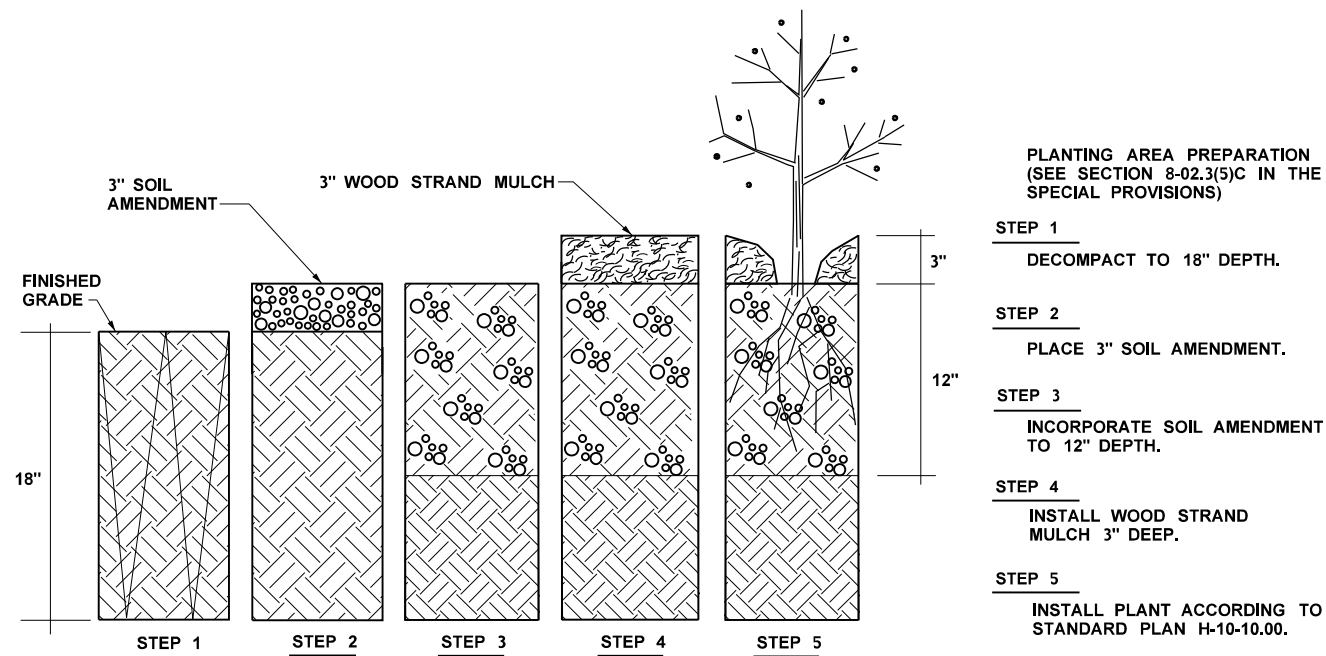
SR 92
PILCHUCK RIVER CED
WOODY MATERIAL REPAIR

RESTORATION DETAILS

Plot 3

LS2

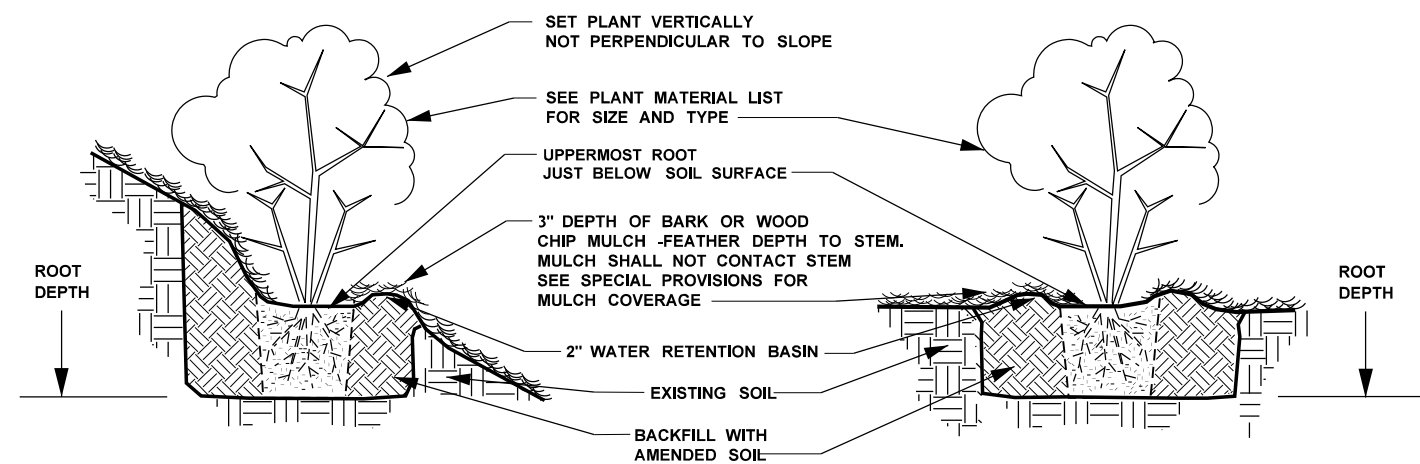
SHEET
15
OF
17
SHEETS



PLANTING AREA SOIL PREPARATION - SEQUENCE OF WORK

SECTION VIEW

NOT TO SCALE



TREE & SHRUB PLANTING ON SLOPE

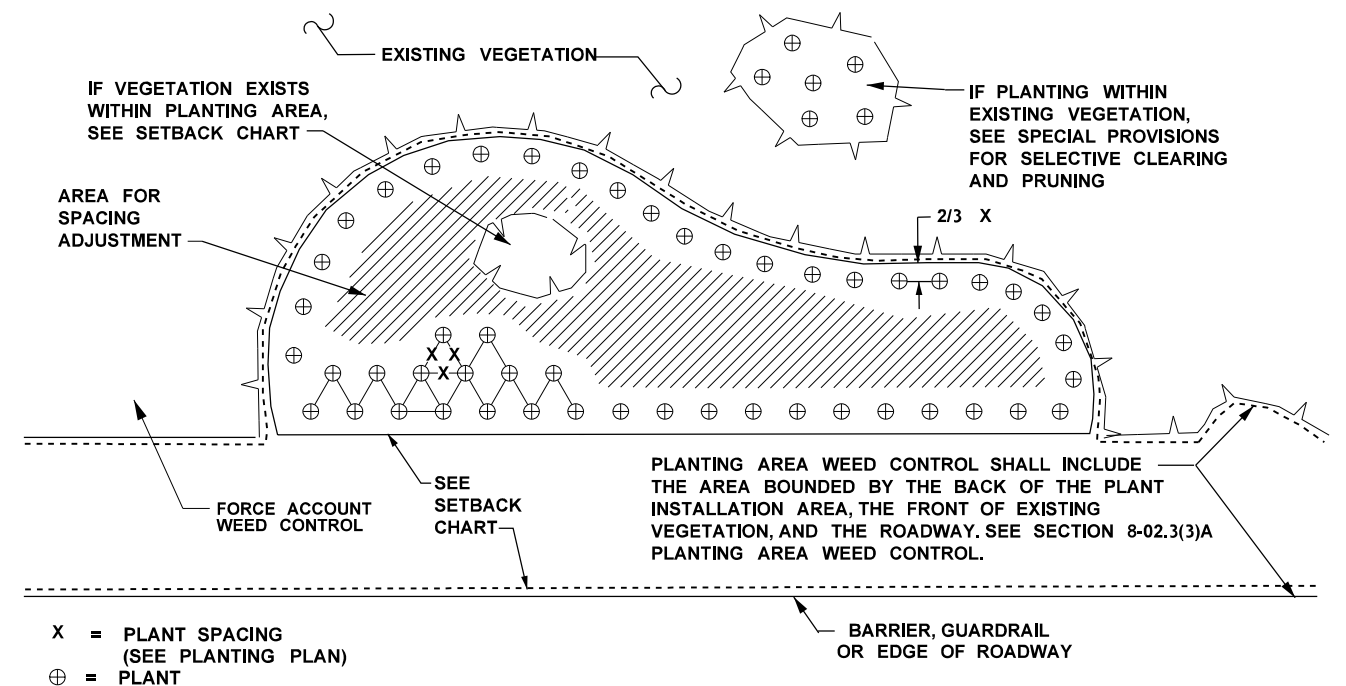
BARE ROOT AND CONTAINER

NOT TO SCALE

TREE & SHRUB PLANTING

BARE ROOT AND CONTAINER

NOT TO SCALE



PLANTING AREA LAYOUT, SETBACK, AND WEED CONTROL

NOT TO SCALE

FILE NAME	T:\412006\XL6143 SR 92 Pilchuck River CED Woody Material Repair\CAD\ContractPlans\XL6143_PS_LS.dgn					REGION NO.	STATE	FED.AID PROJ.NO.
TIME	3:32:08 PM							
DATE	1/9/2024					10	WASH	
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DESIGNED BY	M. JAMES							
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CHECKED BY	L. JUNGBLUTH							
PROJ. ENGR.	C. ANDERSON							
REGIONAL ADM.	B. NIELSEN							
	REVISION		DATE	BY				



Washington State
Department of Transportation

SR 92
PILCHUCK RIVER CED
WOODY MATERIAL REPAIR

RESTORATION DETAILS

Plot 4

LS3

SHEET
16
OF
17
SHEETS



SEE SHEET CT1
DATE

